



Contents of volume 108

Volume 108, No. 1

April 1, 1999

Commentary

Immunosenescence: impact in the young as well as the old?

G. Pawelec (Tübingen, Germany) 1

DNA damage in lymphocytes of elderly patients in relation with total antioxidant levels

V.M. Mendoza-Nuñez, R. Retana-Ugalde, M.A. Sánchez-Rodríguez,
M.A. Altamirano-Lozano (Mexico City, Mexico) 9

Granulocyte and natural killer activity in the elderly

G. Di Lorenzo, C.R. Balistreri, G. Candore, D. Cigna, A. Colombo,
G. Colonna Romano, A.T. Colucci, F. Gervasi, F. Listì, M. Potestio,
C. Caruso (Palermo, Italy) 25

Ageing and endocrine cells of human duodenum

O. Sandström, M. El-Salhy (Umeå, Sweden) 39

Age-related changes in the NADPH-diaphorase-positive neuronal perikarya of the dorsolateral column of the periaqueductal gray in the rat

I.S. Lolova, D.E. Itzev, S.R. Lolov, K.G. Usunoff (Sofia, Bulgaria) . 49

Adaptations in lactate dehydrogenase and its isozymes in aging mammalian myocardium: interaction of exercise and temperature

S. Prathima, S. Asha Devi (Bangalore, India) 61

Evidence that FGF receptor signaling is necessary for endoderm-regulated development of precardiac mesoderm

X. Zhu, J. Sasse, J. Lough (Milwaukee, WI; Tampa, FL) 77

Expression of the c-fos gene induced by parathyroid hormone in the bones of SAMP6 mice, a murine model for senile osteoporosis

N. Takeda, T. Tsuboyama, R. Kasai, K. Takahashi, M. Shimizu,
T. Nakamura, K. Higuchi, M. Hosokawa (Kyoto, Matsumoto, Japan) 87

Volume 108, No. 2**May 3, 1999**

Assessment of DNA-protein crosslinks in the course of aging in two mouse strains by use of a modified alkaline filter elution applied to whole tissue samples R.K. Zahn, G. Zahn-Daimler, S. Ax, M. Hosokawa, T. Takeda (Mainz, Germany; Kyoto, Japan)	99
Age-related changes of the nucleolar organizer regions without neuron loss in medial mamillary bodies (hypothalamus) in old rats A. Begega, M. Cuesta, S. Rubio, L.J. Santín, J.L. Arias (Oviedo, Málaga, Spain)	113
Favourable effect of K, Mg aspartate on serum proteins in aging rats K. Chlebovská, O. Chlebovský (Košice, Slovak Republic)	127
The age-related changes in lipogenic enzymes: the role of dietary factors and thyroid hormone responsiveness A.D. Mooradian, S.G. Albert (St. Louis, MO)	139
Effect of cellular aging on the induction of cyclooxygenase-2 by mechanical stress in human periodontal ligament cells K. Ohzeki, M. Yamaguchi, N. Shimizu, Y. Abiko (Chiba, Japan)	151
Age-related changes of glial fibrillary acidic protein immunoreactive astrocytes in the rat cerebellar cortex M. Sabbatini, P. Barili, E. Bronzetti, D. Zaccheo, F. Amenta (Camerino, Roma, Genoa, Italy)	165
Effect of age and carbon tetrachloride on cytokine concentrations in rat liver L.E. Rikans, L.A. DeCicco, K.R. Hornbrook, T. Yamano (Oklahoma City, OK; Osaka, Japan)	173

Volume 108, No. 3**May 17, 1999**

Review

Aging and T-cell-mediated immunity B. Chakravarti, G.N. Abraham (Rochester, NY)	183
Myocardial and skeletal muscle aging and changes in oxidative stress in relationship to rigorous exercise training A. Navarro-Arévalo, C. Cañavate, M.J. Sánchez-del-Pino (Cádiz, Spain)	207
Human rectal endocrine cells and aging O. Sandström, M. El-Salhy (Umeå, Sweden)	219
Aberrations of cell cycle and cell death in normal development of the chick embryo growth plate J. Erenpreisa, H.I. Roach (Riga, Latvia; Southampton, UK)	227
Advanced glycation in D-galactose induced mouse aging model X. Song, M. Bao, D. Li, Y.M. Li (Beijing, People's Republic of China; Manhasset, NY)	239

Contents of volume 108 261

Author index of volume 108	253
Subject index of volume 108	255
Contents of volume 108	259

